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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/476,372	01/03/2000	BYOUNG-CHUL SOHN	Q57096	7742

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EXAMINER

MEHRPOUR, NAGHMEH

ART UNIT	PAPER NUMBER
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2686

DATE MAILED: 01/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/476,372

Applicant(s)
Byoung-chul Sohl

Examiner
Naghmeh Mehrpour

Art Unit
2686



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Oct 16, 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

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Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1, 7**, are rejected under 35 U.S.C. 102(b) as being anticipated by Buchholz et al. (US Patent Number 5,555,266).

regarding **Claims 1, 7**, Buchholz teaches a wireless resource allocation method in a wireless communication system including a plurality of wireless terminals and a single access point having a bridge function, the method comprising the steps of:

a) allocating a wireless resource to a corresponding wireless terminal and receiving data from said wireless terminal in said access point (col 3 lines 64-65)

b) performing a check to determine whether there is an error in said data which was received from said wireless terminal in said access point in the step (a) (col 3 lines 65-67).

c) sending an error occurrence message and allocating a wireless resource for retransmission of data to said wireless terminal simultaneously when the access point detects a data error in the step (b) (col 3 lines 67, col 4 lines 1-3).

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Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 2**, is rejected under 35 U.S.C. 103(a) as being unpatentable over Buchholz et al.

(US Patent Number 5,555, 266) in view of Hulyalkar et al. (US Patent Number 5,787, 080).

Regarding **Claim 2**, Buchholz does not show one frame comprising the down-link period and an up-link period. However Hulyalkar teaches that one frame comprising the down-link period and an up-link period (see figures 8, col 11 lines 45-52), in the case of error occurrence when mobile requests the base station for allocation of data transmission. Therefore, it would have been obvious to ordinary skill in the art at the time the invention was made to use the above teaching of Hulyalkar with Buchholz, in order to minimize the deterioration in the transmission efficiency, and reduce the delay time.

5. **Claims 3, 5**, are rejected under 35 U.S.C. 103(a) as being unpatentable over Buchholz et al (US Patent Number 5,555,266) in the view of Hulyalkar et al. (US Patent Number 5,787, 080) and in the further view of Johnston (US Patent Number 6,064,649).

Regarding **Claim 3**, Hulyalkar further teaches a wireless resource allocation method wherein said downlink period comprises a broadcast period, and a download reservation period (Hulyalkar, col 10 lines 55-65, col 11 lines 35-45). The combination of Buchholz and Hulyalkar fails to teach a

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wireless resource allocation method wherein said downlink period comprises a preamble for synchronization. However Johnston teaches a wireless resource allocation method wherein said downlink period comprises a preamble for synchronization (col 3 lines 29-39). Therefore, it would have been obvious to ordinary skill in the art at the time the invention was made to combine the above teaching of Johnston with the combination of Buchholz modified by Hulyalkar, in order to reduce transmission delay and to prevent decreasing an actual data transmission rate.

Regarding **Claim 5**, Buchholz fails to show that a wireless resource allocation method wherein during said down-link period, said access point transmits a broadcast message and various control information. However Hulyalkar teaches a wireless resource allocation method wherein during said down-link period, said access point transmits a broadcast message and various control information (see figure 8, col 11 lines 45-52). Therefore, it would have been obvious to ordinary skill in the art at the time the invention was made to combine the above teaching of Hulyalkar with Buchholz, in order to provide a communication system with better performance by reducing transmission delay.

6. **Claim 4**, is rejected under 35 U.S.C. 103(a) as being unpatentable over Buchholz et al (US Patent Number 5,898,679), in view of Hulyalkar et al. (US Patent Number 5,787, 080) in the further view of Patel (US Patent Number 5,953,706).

Regarding **claim 4**, the combination of Buchholz and Hulyalkar fails to teach a wireless resource allocation method wherein the up-link period comprises a contention period and an upload

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preservation period. However Patel teach a wireless resource allocation method wherein the up-link period comprises a contention period and an upload preservation period (col 3 lines 59-65- col 4 lines 1-10). Therefore, it would have been obvious to ordinary skill in the art at the time the invention was made to combine the above teaching of Patel with the combination of Buchholz modified by Hulyalkar, in order to provide a system with less error by reducing the stages where data is manually relayed and transcribed by various service providers.

7. **Claim 6**, is rejected under 35 U.S.C. 103(a) as being unpatentable over Buchholz et al (US Patent Number 5,555,266) and Hulyalkar et al. (US Patent Number 5,787, 080) and in view of Johnston (US Patent Number 6,064,649) in the further view of Patel (US Patent Number 5,953,706).

Regarding **claim 6**, the combination of Buchholz, Hulyalkar and Johnston fails a wireless resource allocation method wherein various control information includes not acknowledge information the wireless terminal transmitted to the access point during the upload reservation period of a previous frame. However Patel teaches a wireless resource allocation method wherein an acknowledge information or not acknowledge information the wireless terminal transmitted to the access point during the upload reservation period of a previous frame (col 6 lines 35-51). Therefore, it would have been obvious to ordinary skill in the art at the time the invention was made to combine the above teaching of Patel with the combination of Buchholz, Hulyalkar modified by Johnston, by centrally control network reduce the cost of the telephone

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communication, and provide more availability of services to users, because not every service provider will have a relationship with a counterpart service provider in every other city.

8. **Claim 8**, is rejected under 35 U.S.C. 103(a) as being unpatentable over Bucholz et al. (US Patent Number 5,555,266) in view of Berderveld et al (US Patent Number 5,898,679).

Regarding **Claim 8** Buchholz fails to teach a wireless resource allocation method in a wireless communication system wherein the step of c) allocates the wireless resources the error occurs in the received data without informing the corresponding wireless terminal of error occurrence.

However Berderveld teaches a wireless resource allocation method in a wireless communication system wherein the step of c) allocates the wireless resources the error occurs in the received data without informing the corresponding wireless terminal of error occurrence (col 6 lines 61-67).

Therefore, it would have been obvious to ordinary skill in the art at the time the invention was made to use the above teaching of Berderveld with Buchholz, in order to minimize the deterioration in the transmission efficiency.

Response to Arguments

9. Applicant's arguments with respect to claims 1-8 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10. **Any responses to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

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or faxed to:

(703) 872-9314, (for formal communications indented for entry)

Or:

(703) 308-6306, (for informal or draft communications, please label

“PROPOSED” or “DRAFT”)

Hand-delivered responses should be brought to Crystal Park II. 2121 Crystal Drive, Arlington. Va., sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Melody Mehrpour whose telephone number is (703) 308-7159. The examiner can normally be reached on Monday through Thursday (first week of bi-week) and Monday through Friday (second week of bi-week) from 6:30 a.m. to 5:00 p.m.

If attempt to reach the examiner are unsuccessful the examiner's supervisor, Marsha Banks-Harold be reached (703)305-4379.

NM

Jan 8, 2004


CHARLES APPIAH
PRIMARY EXAMINER